

the issue of the transmission request;

transferring the data from a transmission request source to said process in accordance with communications of virtual circuit type, so as to store in the buffer the data transmitted by the transmission request source; and

transmitting the data stored in said buffer, to said other apparatus through the radio channel.

15. (Amended) A program recording medium storing therein programs which are employed for incarnating an apparatus for use in a radio communication system wherein the apparatus communicates with another apparatus through a radio channel, the programs causing a computer to execute processing comprising:

receiving data sent in through the radio channel;

monitoring whether or not the receiving step has received data which conforms to a protocol suspended in layers of said radio channel;

generating a process to serve as a reception destination for the data, when the monitoring step has detected the reception of the pertinent data; and

transferring the data received by the process, to a transmission request destination in accordance with communications of virtual circuit type.

23. (Amended) A data communication method for a radio communication system wherein apparatuses communicate through a radio channel, comprising:

receiving data sent in through the radio channel;

monitoring whether or not the received data conforms to a protocol suspended in layers of said radio channel;

generating a process to serve as a reception destination for the data, when the reception of the data conforming to the protocol has been detected; and

transferring the data received by the process, to a transmission request destination in accordance with communications of virtual circuit type.

24. (Amended) A data communication method as defined in claim 23, further comprising:

storing data sent back from the transmission request destination in response to the data transfer, in a cache memory;

making a search as to whether or not data requested by the data received through said radio channel is registered in the cache memory; and

transmitting the requested data in said cache memory, to said transmission request source through said radio channel when said requested data is registered in said cache memory.

25. (Amended) A data communication method for a radio communication system wherein apparatuses communicate through a radio channel, comprising:

transmitting data requested by a transmission source, in accordance with communications of virtual circuit type by employing a protocol of an upper layer with respect to layers of the radio channel;

transmitting the data transmitted by employing the protocol of the upper layer, through said radio channel by employing a protocol of the layers of said radio channel; and

transmitting the data transmitted by employing said protocol of said layers of said radio channel, to a transmission request destination in accordance with the virtual circuit type communications by employing said protocol of said upper layer with respect to said layers of said radio channel.

27. (Amended) A radio communication system, comprising:

a client comprising:

first inter-process communication means for transmitting and receiving data which are exchanged between said client and a server, by communications of virtual circuit type in conformity with a protocol of an upper layer with respect to layers of a radio channel; and

first radio communication means for transmitting and receiving the data which are exchanged between said client and said server and which are inputted to and outputted from said first inter-process communication means, between said first radio communication means and said server through said radio channel in conformity with a protocol of the layers of said radio channel;

a gateway comprising:

second radio communication means for transmitting and receiving said data which are exchanged between said client and said server, between said second radio communication means and said first radio communication means through said radio channel in conformity with the protocol of said layers of said radio channel; and